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ABSTRACT

Short term skill training programs are those programs, usually one year or less, designed to train, retrain, or upgrade the skills of workers. Such programs provide an opportunity for postsecondary vocational institutions to respond to the human resource needs of their communities. A number of important policy issues are involved in the provision of short term training by postsecondary vocational institutions. These programs almost dictate the need for flexibility in course offerings and curriculum design. Mechanisms for acquiring funding, ensuring quality control, maintaining accreditation, and awarding earned credit are all affected by the development and implementation of short term skill training programs. In addition, federal initiatives, such as the Comprehensive Employment and Training Act (CETA) and the Trade Adjustment Assistance (TRA) program may require a different approach and involve a different clientele from those traditionally found in vocational institutions. Nevertheless, short term skill training programs represent a viable means for vocational educators to become involved in regional, statewide, or local economic development efforts. Economic development efforts by vocational educators have been underway in a number of states, though Tennessee, South Carolina, Louisiana, Oklahoma, and Wisconsin are highlighted. In addition, the point is made that business and industry are willing to establish programs in cooperation with vocational institutions if those institutions are willing to tailor their programs to specific human resource needs. (KC)

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SHORT TERM SKILL TRAINING

Alternative Approaches

written by

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FOREWORD

Short Term Skill Training: Alternative Approaches reviews important policy issues in the provision of short term training. Such concerns as quality control, federal employment and training programs, economic development, and other issues are discussed as they relate to these programs.

This is one of six interpretive papers produced during the third year of the National Center's knowledge transformation program. The review and synthesis in each topic area is intended to communicate knowledge and suggest applications. Papers in the series should be of interest to all vocational educators, including teachers, administrators, federal agency personnel, researchers, and the National Center staff.

The profession is indebted to Dr. Russell Paulsen for his scholarship in preparing this paper. Recognition is also due Kenneth R. Edwards, International Brotherhood of Electrical Workers (IBEW); Dr. William West, Institute for Performance-Based Industrial Training; and Jill Frymier Russell, National Center for Research in Vocational Education, for their critical review of the manuscript. Staff on the project included Dr. Carol Kowle, Shelley Grieve, Raymond E. Harlan, and Alta Moser. Editorial assistance was provided by Janet Kiplinger.

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EXECUTIVE SUMMARY

Short term skill training programs are those programs, usually one year or less, designed to train, retrain, or upgrade the skills of workers. Such programs provide an opportunity for postsecondary vocational institutions to respond to the human resource needs of their communities. A number of important policy issues are involved in the provision of short term training by postsecondary vocational institutions.

These programs almost dictate the need for flexibility in course offerings and curriculum design. Mechanisms for acquiring funding, ensuring quality control, maintaining accreditation, and awarding earned credit are all affected by the development and implementation of short term skill training programs. In addition, federal initiatives, such as the Comprehensive Employment and Training Act (CETA) and the Trade Adjustment Assistance (TRA) program may require a different approach and involve a different clientele from those traditionally found in vocational institutions.

Nevertheless, short term skill training programs represent a viable means for vocational educators to become involved in regional, statewide, or local economic development efforts. Economic development efforts by vocational educators have been underway in a number of states, though Tennessee, South Carolina, Louisiana, Oklahoma, and Wisconsin are highlighted. In addition, the point is made that business and industry are willing to establish programs in cooperation with vocational institutions if those institutions are willing to tailor their programs to specific human resource needs.

INTRODUCTION

Short term skill training programs are those programs, usually one year or less, designed to train, retrain, or upgrade the skills of workers. Such training programs can, and should be, an important component of the mission of vocational education, which is to prepare people for employment. They provide an opportunity for postsecondary vocational institutions to respond to the unique human resource needs of their community.

Rapid technological change in the 1980s requires employed workers to upgrade their skills on a regular basis. In addition, short term training can ease workers' entry into new occupational categories, or their transfer from obsolete jobs or areas adversely affected by foreign trade.

"Manpower implications," according to Leonard Lecht, "provide a critical dimension in planning vocational programs reflecting the needs of students and the goals of society" (Lecht 1977, p. 95). If public postsecondary vocational education is to respond to these human resource implications and to the immediate training needs of both individuals and businesses, it should be prepared to meet the demand for short term programs.

Many policy issues are involved in the provision of short term skill training by postsecondary vocational institutions, and a number of constraints exist for educators attempting to meet short term training needs. The following are some examples.

1. There is insufficient support for economic development at the state level, which deprives postsecondary institutions of funding sources which could help make flexible short term programming a reality.

2. Full-time equivalent (FTE) funding formulas allow little room for the type of adaptability and continuing development required of postsecondary institutions in order to meet the short term skill training needs of new or expanding industries.

3. In many cases, postsecondary institutions do not take advantage of Comprehensive Employment and Training Act (CETA) monies available through CETA prime sponsors.

4. Postsecondary institutions often limit their ability to compete with industrial programs or private training firms through the use of inflexible curriculum or credit hour structures.

Postsecondary vocational education institutions are therefore receiving a smaller share of the training "pie" than their experience, expertise, and facilities warrant. As a result, vocational educators need to reexamine their short term training efforts, determine the areas amenable to change, maximize use of government and other funding sources, and work toward enlarging the role of public vocational education in the provision of short term industrial based training and retraining.

THE NATURE OF SHORT TERM SKILL TRAINING

As short term training programs are, for the most part, a relatively new concept for many postsecondary institutions, the organization and operation of these programs deserve some consideration. Because of the diversity of short term programs possible, some discussion of their basic components, including program design, instructional staff, and curriculum, is useful.

Program Design

Short term skill training programs involve skill specific training of less than one year duration (and usually less than nine months). Such programs enable workers to enter the job market, advance in their present job, or keep pace with changing technology in their field. Programs may be designed to meet immediate needs of business and industry for skilled workers, attract new companies to an area, or respond to state/federal/ professional licensing or certification requirements.

To meet these various demands, instructional efforts must be flexible in nature and vary in content, course length, and format. For example, a local vocational institution or community college may collaborate with an employer on preemployment training tailored to a new industry. If, on the other hand, the program is a response to licensing or certification requirements, the state board may specify both the total number of hours and the curriculum. Instructional requirements may vary from a total of twenty hours to certify child care workers to forty hours per week for a five or six month industrial training program in welding or machine shop.

Short term skill training is offered in a variety of formats and approaches. Training may either be in groups, or individualized and competency-based. It may utilize lectures, discussions, labs, videotape, or multimedia presentations. Classes may be held on campus or within plant facilities at the job site. In the case of preemployment training, community facilities may be used until the new plant opens. Classes may be offered one hour per day in accelerated time blocks, or at 4:30 or 5 p.m. to enable students to take two classes in an evening. While training often occurs during job time, it may also take place during off-hours.

The range of offerings depends on many factors. Often, an industry sponsoring a training program will be concerned that workers take as little time as possible out of the work day and reach maximum efficiency in their new skill

as soon as possible. State licensing boards are less concerned with the rapidity of training than with maintaining high standards for their profession. In cases where state governments are willing and able to underwrite training programs to attract new industry, the vocational institution has more freedom and support for departures from more traditional program offerings.

Instructional staff

Qualified instructional staff can contribute greatly to the success of short term training programs. Occupational experience in the areas being taught is mandatory if teachers are to assist students in learning a specific task or skill in a relatively short period of time. Where programs are geared to a specific industry, it is often advisable for the vocational institution to hire an instructor from that industry. In in-house industrial training, successful technical workers are often taken from the shop and provided with a brief introduction to teaching techniques before becoming trainers. This is so often the case that Lusterman (1977, p. 23) found only a small percentage of the 610 corporations he surveyed had staff with full-time educational or training responsibilities—most had other backgrounds and other primary responsibilities within the company. Thus, short term training programs, whether in industry or in the vocational institution, are often taught by technical workers with little background in instructional methodology.

This fact, of course, means that instructors hired from industry many times require some form of inservice training, such as an orientation to the local vocational institution. Likewise, plant tours and observation of industrial processes can help vocational teachers focus their instruction on the precise needs of a company or industry. While faculty costs often are no higher for short term training projects than for the regular program, problems of availability and turnover do affect the costs and the quality of instruction. Instructors may have little incentive for remaining in an educational institution when they are skilled industrial workers. Barker comments that, in general, "training facilities are unable to hire and retain highly qualified instructors because of pay problems" (1979, p. 27). Costs for staff increase when turnover results in constant recruitment efforts. Furthermore, the inservice training and orientation necessary for new faculty every time a short term program is offered constitute costs not covered under most full-time equivalent (FTE) reimbursement methods.

Curriculum

The success of short term skill training programs is directly related to the degree to which the curriculum focuses on the needs of employers or the degree to which it enables students to meet their licensing or certification requirements. To be responsive to the needs of business and industry for skilled workers, postsecondary institutions may need to provide more flexible curricula and more entry points for students.

Since job demands can change rapidly, a thorough assessment and task analysis should be completed prior to the development of any short term skill training program. Advisory committees with representatives from the private sector can assist institutions by sharing information about labor market changes and the types of skills needed by workers in their respective industries. Curricula can then be developed or revised to accommodate changing technologies and labor market demand. An example ofthis type of curriculum is the full certificate program in electronics technology at Northern Virginia Community College's Manassas campus. Campus program planners involved industry leaders in the human resource needs assessment conducted prior to the formulation of their program. Regional human resource projections by the Virginia Employment Commission also provided input into the decision to develop the program, which was designed for IBM, but includes students from the community at large (Reynolds and Gwatney 1976).

Employer-identified courses are often taught at the firm or plant and enrollment is limited to employees of that plant, with tuition and registration fees paid, as a rule, by the employer. Firms that do not have enough employees to warrant a program may cooperate with several other firms having similar training needs. Occupational coordinators from the school can arrange the logistics for such cooperative undertakings.

Increasingly, the goals of training curricula, both in industries and in public vocational institutions, are efficiency and focus. In Lusterman's survey of 610 corporations, a repetitive theme showed education and training were often viewed as a system in which analysis of needs, the development and administration of relevant programs, and evaluative feedback are the main elements. Corporate executives in Lusterman's survey indicated they felt short term training programs should be more precise in the definition of the competency levels sought, and that there should be "more refined task analysis of duties and responsibilities." Programs in the industries surveyed tended to be individualized in order to match subject matter with need. Lusterman notes that, in terms of curriculum, " 'individualization,' 'tailoring,' and 'flexibility' have become key terms in the corporate education-training lexicon" (1977, p. 7). Vocational education curriculum planners should likewise develop their short term training programs to incorporate the features of individualization and flexibility.

Once again, industry's need for skilled workers is not the only driving force behind short term training programs. Licensing and certification requirements also shape their development. In courses designed to meet such requirements, the licensing board or profession may establish precise curriculum requirements as well as the number of hours students must attend the program. In some instances, the short term program may be required for a worker to retain employment, as specified by state regulations. For example, certification of wastewater operators, emergency medical technicians, child care workers, and real estate agents is mandated by the state. Other professions, such as banking

and insurance, specify training requirements for advancement to various levels of professional certification. American Institute of Banking (AIB) courses, for example, are designed to upgrade persons working in banks and other financial institutions. Chartered Life Underwriters (CLU) and Chartered Property Casualty Underwriters (CPCU) are professional designations and certifications for insurance personnel for which additional training is required (Lusterman 1977). Curriculum developers in postsecondary institutions should establish close working relationships with state agency personnel, licensing boards, and professional organizations to ensure that course content meets expectations and satisfies requirements.

IMPORTANT POLICY ISSUES IN THE PROVISION OF SHORT TERM SKILL TRAINING

The very nature of short term skill training almost dictates flexibility in course offerings and curriculum design. A number of factors, however, influence the vocational institution's ability to respond to short term training needs in a timely fashion. These include the mechanisms for acquiring funding, ensuring quality control, maintaining accreditation, and awarding earned credit. Other complications include the institution's capacity to cooperate with federal initiatives, such as the Comprehensive Employment and Training Act (CETA) and the Trade Adjustment Assistance (TRA) Program, the institution's relationship with local business and industry, and the state's perception of the role of public vocational education in economic development.

Quality Control, Accreditation, and Earned Credit

Short term skill training programs present some difficulties for postsecondary institutions in terms of quality control, accreditation, and the awarding of credit. Presently, there are no national standards for such programs. Furthermore, the quality of instruction may be difficult to monitor, particularly when courses are offered away from the main campus and cannot be supervised closely. Regional accrediting bodies are examining in greater detail questions of academic credit and instructional quality, in part because postsecondary institutions are departing more frequently from traditional program offerings. The fact that most short term programs are noncredit and do not lead to a degree makes it difficult to establish comparative norms for course content or for student competencies.

Too great an emphasis on academic credit and instructional quality can create an image problem with industry, which may view vocational education as weak in its ability to provide "real-world hands-on training to support classroom training theory" (Barker 1979). On the other hand, the quality control concerns of vocational education may be appealing to industry. Testing and evaluation are not generally viewed as strong points in industrial training programs (Drawbaugh 1977). When programs are offered in conjunction with vocational institutions or community colleges, the institution's administration and faculty can take primary responsibility for evaluation of learning effectiveness. Furthermore, vocational teachers generally have more frequent exposure to contemporary instructional techniques and concepts than do their industrial counterparts.

Funding

Because they are often designed to meet immediate training needs, short term programs usually are not offered on a continuous basis. High costs for curriculum, program, and staff development may result when each course must be generated independently. Furthermore, in most states, postsecondary institutions are not reimbursed for initial developmental efforts. When schools are not reimbursed for start-up costs, the administration may be reluctant to expand short term skill training program offerings.

Special grants for curriculum development are available on a limited basis. Under the Education Amendments of 1976, funds for Subpart III activities (curriculum development, material development, and research) are limited and apparently decreasing. In addition, more traditional full-time programs compete for the limited funding that is available. On the other hand, better communication among institutions offering short term skill training programs might result in the sharing of existing curricula. Once again, the diversity of offerings and approaches among schools is a drawback to the coordination of developmental efforts.

The potential for expansion of short term training is further constrained in many states by legislative initiatives, which have imposed limitations on expenditures for education at every level, including postsecondary. The Proposition 13 concept in California and similar efforts in other states limit the growth opportunities for short term educational skill training under government funding. A solution to such funding difficulties would be for vocational education institutions to seek alternative sources of financial assistance. Funding for state efforts to recruit new industries or expand existing ones could be handled through a coordinated agency effort. South Carolina and Tennessee have, through their state level economic development councils, set aside specific dollar amounts to assist communities and schools in developing short term training to attract and hold industries (Davis 1978; Department of Economic and Community Development, n.d.). In cooperative educational ventures, business and industry can also serve as a source of capital for program planning and equipment acquisition (Reynolds and Gwatney 1976).

Opportunities for Short Term Skill Training Under Federal Initiatives

Although lack of federal funding support for curriculum development can be a deterrent to the development of short term training programs, other federal monies are available for short term programs through the Comprehensive Employment and Training Act (CETA) and the Trade Adjustment Assistance (TRA) program. Both programs are designed to train the hard-to-employ, the underemployed, or the unemployed to assist these individuals in becoming productive members of the work force.

While programs under these initiatives may require departures from the traditional program structure, the advantages for postsecondary institutions may well outweigh the disadvantages.

Skill Training Under CETA

CETA provides training and employment experience for disdvantaged groups to assist them in achieving employability and income. The statement of purpose that appears in the Act, as amended (1978), is as follows:

It is the purpose of this Act to provide job training and employment opportunities for economically disadvantaged, unemployed, or underemployed persons which will result in an increase in their earned income .. It is further the purpose of this Act to provide for the maximum feasible coordination of plans, programs, and activities under this Act with economic development, community development, and related activities, such as vocational education. (Sec. 2 as quoted in Stevens 1979, p. 8).

Title II of CETA allocated 6 percent of funds available for "Services For the Economically Disadvantaged" and "Upgrading and Retraining" for grants for supplemental vocational education assistance. At least 85 percent of this 6 percent allocation must be used for vocational programs and services for participants in Title II programs. The remainder of the 6 percent allocation can be used as follows:

1. To coordinate programs under this Act with existing vocational education programs

2. To coordinate the utilization of funds under this Act and the Vocational Education Act of 1963 to enhance economic growth and development in the State

3. To develop linkages between vocational education, education and training programs under this Act and private sector employers

4. To provide technical assistance to vocational education institutions and local education agencies to aid them in making cooperative arrangements with appropriate prime sponsors

5. To provide information, curriculum materials, and technical assistance in curriculum development and staff developments to prime sponsors

(Sec. 204 (c) (2) as quoted in Stevens 1979, p. 11)

In postsecondary institutions, two general types of instructional activities are usually funded under CETA. The first, individual referral (slot ins), is a program whereby students receive tuition allowance payments for attending regular,

ongoing vocational education programs of one to two years in length. This type of program provides students with maximum flexibility. The second type of activity is the conducting of class-size training projects designed to meet specific occupational skills needs of local businesses and industries. These needs are determined by gathering information from a variety of sources, such as Job Service studies, CETA prime sponsor studies, labor market surveys conducted by CETA, Private Industry Councils (PICS), and human resource studies conducted by postsecondary institutions. The CETA prime sponsor approves the funding for these projects.

The Education Amendments of 1976 speak forcibly to the need for vocational education to work closely with CETA prime sponsors in providing vocational education. CETA, as amended in 1978, also includes references to cooperation with vocational education, as the previously cited sections have shown. Stevens (1979), in discussing coordination and linkage between vocational education and CETA, concludes that ample enabling language exists to permit their cooperation. He notes, however, that there is evidence that these enabling provisions are recognized as inadequate in themselves to accomplish full cooperation. Under the CETA legislation, the 6 percent set-aside for vocational education provides some incentive for coordination and linkage activities. Linkage between CETA and vocational education for other CETA dollars is at the discretion of the prime sponsor and local postsecondary institutions. Where state level coordination between CETA and vocational education is limited, an occasional "slot in" may be the only evidence of CETA involvement in local vocational programs. The Private Industry Councils (PICs) represent one excellent opportunity for businesses and vocational education to develop joint training programs, since they are designed to encourage private employer involvement with CETA. PIC members include representatives from businesses, educational agencies, community based organizations, and local interest groups concerned with employment and training. PIC plans can provide funding for the development of locally designed experimental programs (Kolberg 1980) and they can serve as a catalyst for short term skill training efforts by postsecondary vocational education.

The CETA Public Service Employment (PSE) program training requirements are another source of support for short term skill training projects. Under Public Service Employment programs, instructional activities can be developed to train persons in federally-subsidized employment for future opportunities in unsubsidized jobs. Funding for CETA supported short term skill training projects is approved by prime sponsors in each locality, or is provided under the Balance of State concept.

Frequently, the political involvement and requisite paper work have discouraged postsecondary institutions from developing CETA-funded efforts. Stevens (1979) feels that alleged diminished standards for program completion and certification of competence have caused further hesitation on the part of vocational education in terms of CETA involvement. Yet CETA may present a

viable means of alternative funding support for short term skill training efforts where such support might not otherwise be available.

The Trade Adjustment Assistance Program

The Trade Adjustment Assistance (TRA) program pays the cost of retraining workers who become unemployed due to the effects of increased foreign imports on their companies. In Youngstown, Ohio, for example, the TRA program provided the Chaffin Career Center with an opportunity to design an individualized module-based vocational curriculum to retrain workers who had lost their jobs as a result of the decline in the city's steel industry. After realizing the difficulty of placing students into existing slots in their old program, Michael Yohman, supervisor of adult programs at the Chaffin Center, reported: "We realized that it would be better to approach the problem in the same way that we meet the needs of our industrial clients—that is, by designing programs to individual needs and specifications" (Yohman, McGuckin, and James 1980, p.48). Yohman sees the flexibility of TRA as a major advantage to both students and institutions.

Likewise, in Arizona, TRA monies were used to provide vocational retraining to miners laid off from the state's copper mines. Ultimately, 72 percent of those who completed their program found work in an area related to their training (Yohman, McGuckin, and James 1980).

The Point of View of Business and Industry

A good deal of the training supported by industries is carried out in-house through their own programs. According to Lusterman (1977), industry spent $1.6 billion on in-house training in 1975 as compared to $400 million for training by outside agencies, including colleges, universities, and a variety of proprietary firms. Although increasing efforts are underway by both business and vocational education to work together toward common training goals, postsecondary vocational education has only begun to tap these opportunities. Lusterman's survey of corporations also appears to support the goals and objectives of postsecondary vocational education. Table 1 summarizes the opinions of executives surveyed on the success of various educational institutions in preparing workers.

As Table 1 shows, two-year vocational institutions received the highest rating for adequate preparation of potential workers. Postsecondary vocational education was rated higher than either four year engineering/science degrees or private vocational schools. Table 2 shows the responses of the sample on the division of responsibility between schools and industry for job training and career guidance. Those surveyed generally approved the trend toward emphasized vocational skill development and career education in secondary and postsecondary educational institutions.

TABLE 1. How Executives Rated Educational Institutions on Their Work-Preparation Role

	Believe Institution Performs Work-Preparation Role			
	Particularly Well	*Particularly Poorly*	*Total Mentions*	*Percent "Poorly" of Total Mentions*
Four year colleges – engineering/science	44%	4%	48%	8%
Two year colleges – vocational curriculum	51	7	58	12
Private vocational	29	10	38	25
Graduate schools	28	12	40	31
Four year colleges – business	28	20	48	41
Secondary schools – vocational curriculum	26	27	53	51
Two year colleges – academic	17	23	40	57
Primary	13	22	34	63
Four year colleges – liberal arts	10	34	44	78
Secondary – academic curriculum	9	39	48	81

From Lusterman, Seymour S. *Education in Industry*, p. 62. Copyrighted 1977 by The Conference Board. Reprinted by permission.

TABLE 2. Attitudes of Executives Toward Vocational Skills and Career Education Trend in Schools and Colleges

Following is a recap of responses to the Conference Board survey question: "We are interested in your views about the proper division of responsibility for career and job training as between industry and the schools. For example, increased emphasis is being placed on vocational skills and career education by many secondary and postsecondary instructors. Please describe what your attitude is toward this apparent trend, and why?"

Approve of trend	*44%*
People need to be prepared to get and hold jobs	18
Society or the economy need more and better trained people	12
Industry or employers need better trained people	12
College degrees (especially in liberal arts) are overvalued	10
Vocational guidance needs more emphasis	3
Other	6
Approve of trend – made no further comment	*32%*
Disapprove of trend	*4%*
Other attitudes and opinions	*20%*
Schools and industry each have roles	10
Problem is not vocational, but basic and interpersonal skills	5
Other	5

From Lusterman, Seymour S. *Education in Industry*, p. 66. Copyrighted 1977 by The Conference Board. Reprinted by permission.

Why, then, is industrial training a relatively new area of involvement for postsecondary vocational education? In addition to the concerns of flexibility, accreditation, and patterns of funding previously discussed, a great deal of the resistance toward vocational training for industrial employees may be coming from the industries themselves. Lusterman's study of employers sheds some light on the attitude of business towards training. Education in the corporate environment is pragmatic, and is considered as a means to accomplishing other goals, such as business profit, growth, and viability. Training is usually seen as a part of a larger human resources system, which includes recruitment, selection, and placement, all of which contribute to overall corporate development. Corporate education therefore must be limited and specific, accomplishing goals in the most economic and efficient manner. Course content, based on job analysis, is particular and focused rather than abstract, and utilitarian rather than theoretical. Much of the material can be taught more appropriately by operating specialists or managers than by professional educators. Further, many corporations prefer to use the training arena as an opportunity to impress their desired attitudes and behaviors upon employers (Lusterman 1977).

Industries may well continue to be major providers of programs to retrain and upgrade their employees. Still, they are not totally unwilling to involve outside educational agencies. According to Lusterman, 89 percent of the industries surveyed have tuition-aid programs which reimburse employees for all or part of the cost of courses taken after working hours. Some of these courses have been and will continue to be provided by vocational education institutions. For example, American Telephone and Telegraph (AT&T) uses instructors from Pace University, Middlesex Community College, Farleigh Dickinson University, and Drew University for its General Departments personnel in the New York-New Jersey area (Lusterman 1977).

Postsecondary educators can tap into industry's short term skill training needs if they are prepared to provide what industries want at a cost firms are willing to pay. But postsecondary vocational institutions wanting to establish short term programs for use by industry should seek to satisfy the following criteria:

1. Courses must be highly focused and formulated with the assistance of industry advisors to best relate to the needs of the individual group or firm.

2. Courses should be individualized and competency-based wherever possible.

3. As paid time off the job is expensive, courses must be kept short and self-study materials used to the greatest extent possible.

4. Courses should be taught by individuals with training and experience in the specialized area.

In addition, vocational educators must convince industry that going to an outside resource will result in long term economic benefits. Where vocational educators are willing and able to provide flexible programs, self-contained training modules, and well-qualified instructors, linkages with industry are not only feasible, but highly productive.

Short Term Skill Training and Economic Development

In business and industry, the supply of competent employees—not available technology or capital—will be the decisive factor in production (Drawbaugh 1977). This has important implications for the commuter suburb in need of a broadened tax base and jobs closer to home, or for the state or region seeking to industrialize or reindustrialize. In his discussion of vocational program planning for the next decade, Lecht relates projected human resource needs to vocational enrollments. He notes that "since the availability of workers with the skills in demand is one of the underlying factors affecting the magnitude and direction of economic change, vocational education has a role in facilitating growth" (Lecht 1977, p. 95).

Vocational education has sought not only to anticipate the economy's human resource needs, but also to promote economic growth. It is not sufficient to attract industry to a region or state without providing the training to support that industry's needs. Economic development at the state level can be promoted through a well-developed education and vocational training program that provides a ready labor force (Braden and Paul 1979).

Progressive states have, for example, set aside funds to allow for training to meet the needs of new or expanding industries on a local or regional basis. Tennessee, South Carolina, Wisconsin, Oklahoma, and Louisiana, among others, have used the offer of responsive vocational training to attract new industry. Tennessee provides an Industrial Training Service through its Department of Economic and Community Development. From the initial master plan to professional start-up coordination, the program offered by the Industrial Training Service is designed to assist new industries in gearing up and meeting their specific human resource requirements. In addition to the master training plan, services include the following:

- The coordination of employee screening, recruiting, and testing
- The provision of prehire, on-the-job, and production related (blueprint reading, company policies, and quality control) courses
- Customized training materials (which can later be used by the company as the basis for their own internal training programs, if desired)

Key management personnel also receive an orientation to the values and attitudes of their employees. The state itself pays all development and training costs until the plant is fully staffed. For accessibility, mobile self-contained

classrooms augment the permanent facilities offered by Tennessee's area vocational-technical centers, technical institutes, and community and four-year colleges ("Tennessee Industrial Training Service" n.d.).

Similar services are available in South Carolina from the Division of Industrial and Economic Development of the state's Technical Education System. Their Special Schools program provides intensive short term training to prepare workers for new and expanding industries. It reduces start-up costs by allowing employers to train workers in a simulated production environment, and reduces initial turnover by serving as a prehiring screening tool. (A companion program, the Technical Education Centers, or TECs, seeks to accomplish the same goals through longer term certificate or degree programs.) ("Start Up in the Black in South Carolina" n.d.; and Davis 1978).

In Oklahoma, the vocational education system, through its Special Schools Division, offers several training programs for new industries in the state. A staff member from the division is assigned to coordinate the training program. The division provided a retraining program for General Motors' Oklahoma City Plant, which included a training facility, video training films, technical assistance, audiovisual equipment, and the development and publication of training manuals (Barker 1979).

In Wisconsin, short term skill training programs have been a major part of the efforts of the sixteen districts of the Vocational, Technical, and Adult Education (VTAE) system to meet industry's needs for skilled labor. During the last twenty years, these efforts have expanded significantly.

The North Central Technical Institute in Wausau, Wisconsin employs occupational coordinators through its Outreach Services Division to contact businesses and industries, identify training needs, and respond with program development. Three different approaches are used to meet industry needs: the "grouping method," which coordinates a limited number of clients per firm from various companies with common needs and within commuting distance of a centralized training site; consulting activity or on-site instruction geared to a class (usually twelve or more employees) for an individual firm; and resource development, utilized to identify and compensate for the lack of any missing key elements essential to an effective program (i.e., equipment, instructor, course design or program materials, proximity to facility). Programs in the Marathon County area to date have included a factory simulation for the Moxness Corporation; a metric education program and in-plant refresher program on hydraulics and assembly for the Drott Manufacturing Company; and a structural steel fabrication program for LOED Company (Paulsen and Schubert n.d.).

Another effort in the state by the Wisconsin Job Service Planning Group involves development of a forum for major deliverers of education and training. The exchange is aimed at avoiding duplication and conflict through a comprehensive state wide systems planning process involving state agencies and

economic development organizations on all levels (Wisconsin Job Service Planning Group 1980).

Louisiana is another state where industry and vocational education have cooperated to promote economic development. In 1973, businesses and the community worked together to authorize $100 million for modernization and expansion of statewide vocational education facilities (Campbell 1980). In New Orleans, the Chamber of Commerce has supported the development of Project Sigma, a combined business, labor, and education effort to expand the operating and capital budgets for the vocational schools in the region. Additional monies are being used to meet labor shortages in shipbuilding and related industries by training 3,000 workers.

These states are just five examples of what can occur when vocational institutions become involved in economic development efforts through short term programs designed to meet specific industry needs. Gene Bottoms, executive director of the American Vocational Association (AVA), testified before Congress on September 17, 1980 that fourteen states have highly developed, formal systems for coordinating vocational education training with economic development. According to Bottoms' statement, such a system for coordination with economic development activities is defined as follows:

> There is high degree of coordination between economic development and vocational training functions (at least two full-time staff persons responsible for needs assessment, liaison, and program development); network of local staff assigned to different institutions; allocation of state dollars to support training for new and expanding industries; most of these states have curriculum centers with capacity to prepare materials quickly for different training needs; and there is proven track record of at least five years (Bottoms 1980, p. 77).

Clearly, for states to establish successful economic development programs, these features should be present: state dollars must be allocated to support training for new and expanding industries, vocational institutions must have the capacity to respond quickly to different training needs, and those institutions must be able to devote staff time to needs assessment and program development.

Vocational education's involvement in economic development has become such an important concern at the national level that AVA has invited schools from across the country to participate in a project funded by the U.S. Department of Education's Office of Vocational and Adult Education. Project staff are studying innovative vocational education programs that encourage economic and community development. The criteria for school selection included at least one year of successful operation, with the primary thrust of the activities directed toward the creation of additional jobs in existing business and industry ("Economic Development" 1980).

CONCLUSION

Postsecondary vocational institutions face a number of problems and challenges in considering their commitment to short term skill training. The problems include locating adequate developmental funding to identify, modify, or produce curriculum; to purchase equipment; and to hire staff. Federal funding support for curriculum development is dwindling. Furthermore, present funding patterns based on full-time equivalents (FTE) make it difficult for vocational institutions to generate support for short term programs.

Questions of quality control and the importance of maintaining accreditation make it difficult for vocational institutions to depart from traditional programs and academic credit requirements. Retaining qualified instructional staff is a problem when such staff are usually recruited from industry and have little incentive for remaining in an educational institution. Turnover and constant recruitment efforts create hidden costs that may be present in short term programs.

The challenges include the need to be more responsive to industry, to be more flexible in programming, to be more timely in responding to industry's human resource needs, and to work within the constraints of federal initiatives like CETA and TRA. Working with CETA and TRA, for example, presents the challenge of training client groups--the disadvantaged, unemployed, discouraged, or "displaced" workers--which have not been traditional clients of vocational education.

The rewards, however, should outweigh the costs. Vocational educators can prove their ability to train a diverse populace in skills actually needed in the work world. The relationship between vocational education and industry will be greatly strengthened by efforts to tailor training to industrial needs. Vocational education can also contribute to economic development on a state or regional level by attracting industry to a location where workers can be well trained in a short period of time.

The increasing importance of short term skill training is evidence of the growing need for a highly skilled work force. Vocational institutions must meet this challenge by considering their flexibility and openness to new funding patterns, new program designs, and innovative curricula. As Persons comments,

> Vocational education must dare to be different. There must be innovative programs that test the ability of vocational education to interface with the problem of matching resources and people (Nelson and Peverly 1980, p. 73).

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